



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/781,796 | 02/12/2001 | Adrien R. Beaudoin | 920333.90019 | 6953 |

26710 7590 07/25/2002

QUARLES & BRADY LLP
411 E. WISCONSIN AVENUE
SUITE 2040
MILWAUKEE, WI 53202-4497

| |
|----------|
| EXAMINER |
|----------|

LILLING, HERBERT J

| | |
|----------|--------------|
| ART UNIT | PAPER NUMBER |
|----------|--------------|

1651

DATE MAILED: 07/25/2002

13

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/781,796

Applicant(s)

BEAUDOIN ET AL.

Examiner

HERBERT J LILLING

Art Unit

1651

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 February 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) _____ is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claim(s) 1-18 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____

- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

Art Unit 1651

1. Receipt is acknowledged of the preliminary amendment filed February 12, 2001 and prior art information disclosure statement filed September 26, 2001. In addition, the raw sequence listing of June 06, 2002 has been approved and entered into the application.

2. Claims 1-18 are present in the instant application.

3. Restriction to one of the following inventions is required under 35 U.S.C.

121:

- I. Claims 1-2, drawn to an ATP diphosphohydrolase having specific properties which includes a Mol.Weight of about 78 KDa, classified in class 435, subclass 191+.
- II. Claim 3, drawn to an ATP diphosphohydrolase having specific properties which includes a Mol.Weight of about 54 KDa, classified in class 435, subclass 191+.
- III. Claims 4-13, drawn to a process for the purification of an ATP-diphosphohydrolase enzyme, classified in class 435, subclass 180+.

Claims 14 and 15 are improper claims as not drawn to one of the statutory inventions due to the expression "use of". A further restriction may be drawn if each of the claims are properly amended.

IV. Claim 15, drawn to a composition which is drawn to an active ingredient comprising ATP diphosphohydrolase of Claim 1 or seq. No. 1 or variant or part thereof, Classified in Class 435, subclass 180+.

Ser No. 08/781,796

Art Unit 1651

V. Claims 17-18, drawn to a process for producing an ATP diphosphohydrolase, classified in Class 435, subclass 180+.

4. The inventions are distinct, each from the other because:

Invention I is drawn to a separate and patentably distinct invention from that of Invention II as evidenced that the molecular weight of the two components are completely different.

Invention II is separate and patentably distinct from that of Inventions I or II since

Inventions I/II do not require the specifics of the purification process of Invention III.

Inventions II or III is patentably distinct from that of Invention IV since the composition of Invention IV does not require the specifics of Inventions I or II.

Invention V is drawn to a patentably distinct invention from that of Invention III.

5. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art, have acquired a separate status in the art because of their recognized divergent subject matter and the search required for one invention is not required for the other invention, thusly the restriction for examination purposes as indicated is proper.

Ser No. 08/781,796

Art Unit 1651

6. This application contains claims directed to the following patentably distinct species of the claimed invention:

A. Whereby the enzyme is obtained from:

- a. Pig pancreatic zymogen granules;
- b. Bovine aortic intima layer.

B. Whereby the ATP diphosphohyrolase has :

- i> sequence as defined in SEQ No. 1;
- ii> variant of the sequence as defined in SEQ No. 1;
- iii> part of sequence as defined in SEQ No. 1;
- iv> comprises amino acid sequence defined in SEQ ID Nos 3-6 having

a mol wt of about 78 Kda;

- v> comprises amino acid sequence defined in SEQ ID No 7 having a

mol wt of about 54 Kda.

C. Whereby the nucleic acid has

- I> sequence as defined in SEQ No. 1;
- ii> variant of the sequence as defined in SEQ No. 1;
- iii> part of sequence as defined in SEQ No. 1;
- iv> comprises amino acid sequence defined in SEQ ID Nos 2;
- v> variant of of an amino acid sequence defined in SEQ ID Nos 2;
- vi> part of an amino acid sequence defined in SEQ ID Nos 2.

Ser No. 08/781,796

Art Unit 1651

Applicant is required under 35 U.S.C. 121 to elect a single disclosed species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable. Currently, no claim is generic.

Applicant is advised that a reply to this requirement must include an identification of the species that is elected consonant with this requirement, and a listing of all claims readable thereon, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered nonresponsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

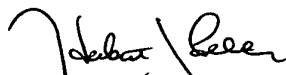
Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

Art Unit 1651

7. Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined I-V and an election of a species from A, B and C (if appropriate to the elected invention) even though the requirement be traversed (37 CFR 1.143).
8. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a petition under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(l).
9. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.
10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Lilling whose telephone number is (703) 308-2034 and fax number is (703) 308-4242 or SPE Michael Wityshyn whose telephone number is (703) 308-4743. Examiner can be reached Monday-Thursday from about 5:30 A.M. to about 3:00 P.M. Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 308-0196.

H.J.Lilling: HJL
(703) 308-2034
Art Unit 1651

July 25, 2002


Dr. Herbert J. Lilling
Primary Examiner
Group 1600 Art Unit 1651

Art Unit 1651

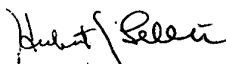
7. Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined I-V and an election of a species from A, B and C (if appropriate to the elected invention) even though the requirement be traversed (37 CFR 1.143).

8. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a petition under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(l).

9. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Lilling whose telephone number is (703) 308-2034 and fax number is (703) 308-4242 or SPE Michael Wityshyn whose telephone number is (703) 308-4743. Examiner can be reached Monday-Thursday from about 5:30 A.M. to about 3:00 P.M. Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 308-0196.

H.J.Lilling: HJL
(703) 308-2034
Art Unit 1651
July 25, 2002


Dr. Herbert J. Lilling
Primary Examiner
Group 1600 Art Unit 1651